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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/392,434

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BRADFORD

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ACA6124PDUS

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EXAMINER

SERGEANT, R

ART UNIT

PAPER NUMBER

1711

DATE MAILED:

05/09/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
**09/392,434**

Applicant  
**Bradford et al.**

Examiner  
**Rabon Sergeant**

Group Art Unit  
**1711**



Responsive to communication(s) filed on \_\_\_\_\_.

This action is **FINAL**.

- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-8 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-8 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been
- ☐ received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

- ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- ☒ Notice of References Cited, PTO-892
- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2
- ☐ Interview Summary, PTO-413
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 1711

1. Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Within line 4 of claim 1, applicants have stated that flame retardant (a) is adapted for use in a polyurethane foam formulation; however, applicants have failed to teach exactly what constitutes the adaptation or how it is preformed.

2. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The use of the language, "less than about 10%", renders the claims indefinite, because "about 10" encompasses values above 10; therefore, it is unclear if the "less than" language encompasses values of 10 and slightly above 10.

3. Claims 7 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what is meant by "on a number average basis".

The use of "about" to specify an integer value for the repeating unit renders the claims indefinite, because it raises ambiguity with respect to exactly what compounds are encompassed by the language. Furthermore, it is unclear how to interpret an integer value of about 20.

Art Unit: 1711

The use of "can" renders the claims indefinite because it is unclear if or to what extent the language denoted by "can" is optional.

Within claim 7, applicants have failed to specify chain lengths for the alkyl, hydroxyalkyl, and alkylene groups.

Within claim 8, "respectively" should follow "ethylene", so as to further clarify the definitions.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was

Art Unit: 1711

made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 255,381.

The reference discloses polyurethane foam compositions comprising a phosphonate flame retardant and an oligomeric organophosphorus flame retardant. See abstract and pages 2 and 3.

6. Claims 1, 3, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 428,221.

The reference discloses polyurethane foam compositions comprising a blend of triphenyl phosphate and oligomeric organophosphorus flame retardant. See abstract; page 2, lines 8, 9, and 37-39; and examples 10-12.

7. Claims 1-3 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hardy et al. ('035) in view of Eckel et al. ('645).

Hardy et al. disclose polyurethane foams comprising oligomeric phosphate esters as flame retardants. See abstract.

8. Hardy et al. are silent regarding the use of phosphate flame retardants in addition to the oligomeric phosphate; however, alkyl aryl phosphates were well-known flame retardants for polyurethane compositions at the time of invention. Furthermore, flame retardant compositions for use within polymers comprising both oligomeric phosphates and alkyl or aryl phosphates were known at the time of invention. This position is supported by the teachings of Eckel et al. Since it has been held that it is *prima facie* obvious to combine two compositions, which separately

Art Unit: 1711

have the same utility, to obtain a third composition, which is to be used for the same purpose, it would have been obvious to combine the respective flame retardants within a polyurethane composition, so as to arrive at the instant invention. In re Kerkhoven, 205 USPQ 1069. The teachings of the secondary reference indicate that the respective flame retardants are compatible and useful with each other.

9. Claims 1, 3, 4, and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 255,381 or EP 428,221, each in view of Hardy et al. ('035).

As aforementioned within paragraphs 5 and 6, the primary references disclose polyurethanes comprising blends of non-oligomeric organophosphorus flame retardant and oligomeric organophosphorus flame retardant.

10. Though the primary references are silent with respect to the specifically claimed oligomeric phosphates of claims 7 and 8, the position is taken that the claimed oligomeric phosphates were known flame retardants at the time of invention. This position is supported by the teachings of Hardy et al. In view of the structural similarities between the oligomeric organophosphates of the primary and secondary references, the position is taken that one would have expected them to have comparable flame retarding qualities. Therefore, it would have been obvious to replace the organophosphate of the primary reference with the organophosphate of the secondary reference, so as to arrive at the instant invention.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (703) 308-2982.

  
RABON SERGENT  
PRIMARY EXAMINER